

NOTES ON STOMATOPOD CRUSTACEA FROM
VICTORIA AND TASMANIA

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INTRODUCTION

In a previous paper (Stephenson, 1952) it was noted that, of the 34 species of *Stomatopoda* recorded from Australia, only four were known from Victoria and one from Tasmania. A second Tasmanian species has since been found by Guiler (1952). It was suspected that additions would result from examining material from Victorian and Tasmanian museums, and this has proved to be the case.

The Directors of the following museums most kindly forwarded their material to Brisbane for examination:—National Museum of Victoria, Melbourne (Mr. R. T. M. Pescott); the Tasmanian Museum, Hobart (Dr. J. Pearson); and the Queen Victoria Museum and Art Gallery, Launceston (Dr. I. Thomson). Especial thanks are due to Drs. Pearson and Thomson for permission to publish results in the present journal.

Only specimens from Victoria or Tasmania, or suspected to have been collected there, are included in the present report. References following specific names are purposely reduced in number, and especially by the exclusion of the majority of authors prior to Kemp (1913). Lengths of specimens are measured mid-dorsally from the posterior end of the telson to the anterior end of the carapace, excluding the rostrum. Owing to curvature or extensibility of many specimens, these measurements are only accurate to about $\pm 1\%$ or 1 mm. whichever is larger.

SQUILLA MILES HESS

Squilla miles, Hess, 1865, Arch. f. Naturges, XXXI. (1), p. 169, pl. vii. fig. 21; Kemp, 1913, Mem. Ind. Mus., IV (1), p. 36; Odhner, 1923, Med. Göteb. Mus. Zool. Avd., 30, p. 1, figs. 1-3; Hale, 1924, Rec. S. Aust. Mus., II. (4), p. 492, pl. xxxii. fig. 1, text fig. 381 a-i.

Squilla pectinata, Tate, 1883, Trans. R. Soc. S. Aust., VI., pl. 50, pl. ii., figs. 2 a-d.

National Museum, Melbourne.

Material: Eight males, 75–140 mm.; nine females, 57–126 mm.; one sex indeterminate c.110 mm.

Localities: Saltwater River; Geelong; Phillip Is.; Port Phillip, from stomach of flathead; Lakes Entrance; Hobson's Bay, Sorrento; Western Port Bay; Loutit Bay; Queenscliff; two specimens localities unknown.

Tasmanian Museum, Hobart.

Material: Two males, 39 mm., 83 mm.

Locality: Eaglehawk Neck, S.-E. Tasmania.

Queen Victoria Museum, Launceston.

Material: Two specimens.

Localities: George Town, R. Tamar, fish stomach; Lady Barren Is., Bass Str.

Comments: Apparently the dominant stomatopod in Victorian waters, from whence it has been recorded by Miers (1880). It is also common in S. Australia (Tate, 1883; Odhner, 1923; Hale, 1924; Hale, 1927; Hale in personal letter); and is apparently not uncommon in Tasmania, as judged from Guiler's (1952) and the present records.

Collections at the Australian Museum, Sydney, and the Western Australian Museum, Perth, have been examined through the kindness of their Directors (Dr. Walkom and Mr. Glauert respectively) and the dominant stomatopod in these collections is not *S. miles* but *S. laevis* Hess.

SQUILLA INORNATA TATE

Squilla inornata, Tate, 1883, Trans. R. Soc. S. Aust., VI., p. 51, pl. ii. figs. 3 a-e; Stephenson, 1952, Mem. Qd. Mus. (in the press).

Squilla affinis var *intermedia*, Nobili, 1903, Bull. Mus. Zool. Anat. Comp. Torino, 18 (455), p. 38.

Squilla oratoria var *perpensa*, Kemp, 1913, Mem. Ind. Mus., IV. (1), p. 70, pl. v. figs. 57-9.

Squilla oratoria var *inornata*, Hale, 1924, Rec. S. Aust. Mus., II. (4), p. 495; Chopra, 1935, Rec. Ind. Mus., XXXVI, p. 24; Gravier, 1937, Ann. Inst. Oceanogr., XVII., p. 183, fig. 6; Holthius, 1941, Temminkia, VI., p. 248; Lui, 1949, Contrib. Inst. Zool. Nat. Acad. Peiping, V. (1), p. 37, figs. 2 a, b.

Squilla oratoria inornata Tweedie, 1935, Bull. Raffles Mus., p. 45.

Tasmanian Museum, Hobart.

Material: Male, 63 mm., no locality data.

Comments: This species has been recorded from S. Australia (Hale, 1924), Queensland (Hale, 1924; Stephenson, 1952) and N. Australia (Miers, 1880). So far there are no records from Tasmania or Victoria, but the present specimen suggests that Tasmanian specimens may be found at a later date.

HEMISQUILLA STYLIFERA (H. M. EDWARDS).

Gonodactylus styliferus, H. M. Edwards, 1837, Hist. Nat. Crust., 2, p. 330, pl. xxvii., figs. 9-14.

Hemisquilla stylifera, Kemp, 1913, Mem. Ind. Mus., IV. (1), p. 106, pl. vii., figs. 84-5; Schmitt, 1940, Allan Hancock Pac. Exped., 5 (4), p. 182; Stephenson, 1952, Mem. Qd. Mus. (in the press).

Tasmanian Museum, Hobart.

Material: Three specimens, Reg. Nos. E.1345-47; the last sighted, male 140 mm.

Locality: Victorian coast.

Comments: Almost certainly coll. "Endeavour."

LYSIOSQUILLA PERPASTA HALE

Lysiosquilla perpasta, Hale, 1924, Rec. S. Aust. Mus., II. (4), p. 497, pl. xxxiii., fig. 1, text fig. 382; Hale, 1927, Crust. S. Aust., pt. i., p. 33, fig. 23.

National Museum, Melbourne.

Material: Two males, 26 and 30 mm.; one female 33 mm.

Localities: Flinders; Shoreham, Western Port Bay.

Notes: The 26 mm. male (Shoreham) has six teeth on each raptorial claw.

Tasmanian Museum, Hobart.

Material: Two males 30 mm., 30 mm.; female 32 mm.

Locality: Tasmanian Peninsula.

Three additional Tasmanian specimens have been examined by the author. These were collected by Professor Hickman "under stones at low tide, Eaglehawk Neck, S.-E. Tasmania."

Comments: New records for Victoria and Tasmania.

LYSIOSQUILLA VERCOI HALE

Lysioquilla vercoi, Hale, 1924, Rec. S. Aust. Mus., II. (4), p. 499, pl. xxxiii., fig. 2, text fig. 383; Hale, 1927, Crust. S. Aust., pt. i., p. 33, fig. 24; Stephenson, 1952, Mem. Qd. Mus. (in the press).

Tasmanian Museum, Hobart.

Material: Male, 54 mm.

Locality: Coles Bay, Tasmania.

Notes: Ten teeth on the left and eleven on the right raptorial dactylus.

Comments: New Tasmanian record.

LYSIOSQUILLA OSCULANS HALE

Lysioquilla vercoi var *osculans*, Hale, 1924, Rec. S. Aust. Mus., II. (4), p. 501, pl. xxxii., fig. 3, text fig. 384.

Lysioquilla osculans, Hale, 1927, Crust. S. Aust., pt. i., p. 34, fig. 24.

National Museum, Melbourne.

Material: Male, 35 mm. female c.40 mm., one sex indeterminable (damaged specimen) 37 mm.

Localities: Western Port Bay (the female); others unknown.

Comments: Recorded from Mornington, Victoria, July 6, 1927, by Mr. Hale (personal communication) but there are no published records from Victorian localities.

DISCUSSION

The following table which includes manuscript records, summarizes the existing information regarding the stomatopod fauna of Victoria and Tasmania. Six species have been recorded from the former state, of which five are indigenous to Australia. Tasmanian fauna is increased to four species (excluding *S. inornata*) of which three are indigenous. It appears that South-Eastern Australia contains few stomatopod species, dominated by indigenous forms, and this is in distinct contrast with the Queensland fauna (Stephenson, 1952) which is rich in species and dominated by an "overflow" of Indo-Pacific forms.

<i>Species</i>	<i>State Records</i>	<i>Authority</i>
<i>Squilla miles</i>	Victoria Tasmania	Miers, 1880; present work. Guiler, 1952; present work.
<i>S. luavis</i>	Victoria Tasmania	Miers, 1880. Not recorded.
<i>S. inornata</i>	Victoria Tasmania	Not recorded. No definite record but see present work.
<i>Hemisquilla stylifera</i>	Victoria	Kemp, 1913; Stephenson, 1952; present work.
<i>Lysiosquilla perpasta</i>	Tasmania Victoria	Hale, 1924. Present work.
<i>L. vercoi</i>	Tasmania Victoria	Present work. Stephenson and McNeill (in ms.).
<i>L. osculans</i>	Tasmania Victoria Tasmania	Present work. Hale (in ms.); present work. Not recorded.

REFERENCES

- GUILER, E. R. (1952): "A list of the Crustacea of Tasmania." *Rec. Q. Vic. Mus.*, Launceston, Vol. III., No. 3, pp. 15-44.
- HALE, H. M. (1924): "Notes on Australian Crustacea No. 1." *Rec. S. Aust. Mus.*, Vol. II., No. 4, pp. 491-502, pl. xxxii-iii., text figs. 381-4.
- HALE, H. M. (1927): "The Crustacea of South Australia, Part I." 201 pp., 202 figs.
- KEMP, S. (1913): "An Account of the Crustacea Stomatopoda of the Indo-Pacific Region based on the Collection in the Indian Museum." *Mem. Ind. Mus.*, Vol. IV., No. 1, pp. 1-217, pls. i-x.
- MIERS, E. J. (1880): "On the Squillidae." *Ann. Mag. Nat. Hist.*, Ser. 5, Vol. V., pp. 1-30, pp. 108-27, pls. i-iii.
- ODHNER, T. (1923): "Indopazifische Stomatopoden." *Med. Göteb. Mus. Zool. Avd.*, Vol. 30, pp. 1-16, 1 pl.
- STEPHENSON, W. (1952): "Notes on the Australian Stomatopoda (Crustacea) in the Collections of the Queensland Museum." *Mem. Qd. Mus.* (in the press).
- TATE, R. (1883): "Descriptions of some New Species of *Squilla* from South Australia." *Trans. Proc. Roy. Soc. S. Aust.*, Vol. VI., pp. 48-52, pl. ii.